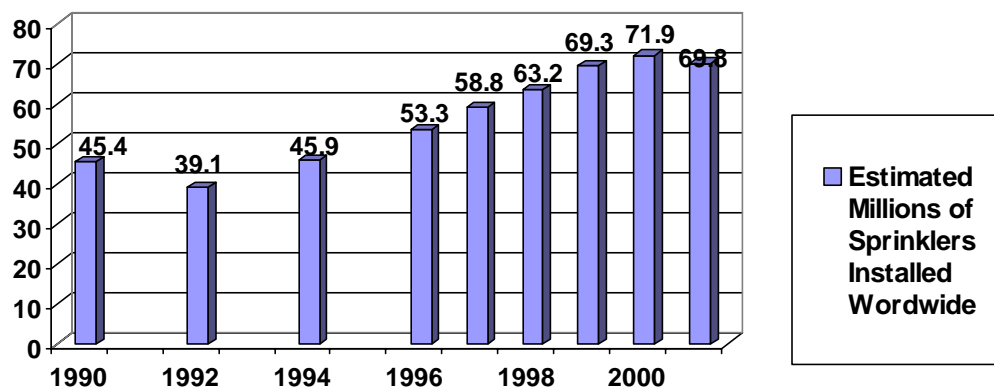


World Sprinkler Usage Dropped Slightly in 2001

A survey of the world sprinkler market suggests that a weaker global economy reduced the total number of installed sprinklers in 2001 below the record levels of 2000. Whereas the total had topped 70 million for the first time in 2000, the 2001 estimate dropped back below this benchmark to 69.8 million. Sprinkler usage in most parts of the world was flat or weaker, although substantial growth was still estimated to have taken place in China. In fact, there are reports that the total usage of sprinklers in China surpassed the 10 million mark in 2001, even though the compilation of the survey resulted in a figure of 9 million.



The survey results are reported on the following page for 25 geographical areas. The total estimated sprinkler usage by continent is shown below, with the totals compared to the estimates from the two prior years:

	1999 Estimate	2000 Estimate	2001 Estimate
North America	43.7 (63%)	45.2 (63%)	42.8 (61%)
Asia and Pacific	14.4 (21%)	14.9 (21%)	15.5 (22%)
Europe and Mideast	8.1 (12%)	8.4 (12%)	8.5 (12%)
Central and South America	1.6 (2%)	1.6 (2%)	1.2 (2%)
Australia/NZ	0.9 (1%)	1.2 (<2%)	1.3 (2%)
Africa	0.6 (1%)	0.6 (<1%)	0.5 (1%)
	<u>69.3</u>	<u>71.9</u>	<u>69.8</u>



Estimated Number of Sprinklers Installed (millions) - Year 2001

Geographic Area	Number	Change from 2000
1. Canada	3.2	-0.7
2. Mexico	0.6	-0.2
3. United States	39.0	-1.5
.....		
4. Central America (inc. Carib.)	0.4	-0.2
5. South America	0.8	-0.2
.....		
6. United Kingdom	1.3	
7. Germany	1.5	+0.1
8. France	0.9	+0.1
9. Scandinavian Countries (Nor., Swe., Den, and Fin.)	0.8	+0.1
10. Italy	0.5	
11. Low Countries (Belg., Neth., and Lux.)	0.5	
12. Austria and Switzerland	0.5	+0.1
13. Spain and Portugal	0.6	
14. CIS (former Soviet Union)	0.5	
15. Israel	0.5	-0.3
16. Other European / Mid-East	0.9	
.....		
17. China (inc. Hong Kong)	9.0	+2.0
18. Japan	1.9	-1.2
19. Korea	1.7	-0.1
20. Singapore and Malaysia	0.9	-0.1
21. Taiwan	0.8	-0.2
22. Other Asian and Pacific	1.2	
.....		
23. Africa (inc. Egypt)	0.5	-0.1
.....		
24. Australia	1.1	+0.1
25. New Zealand	0.2	

As in past years, the survey was conducted by asking a selected group of knowledgeable individuals to provide their best estimate of sprinkler usage around the world, weighting the opinions based on the confidence level of the submitter.

World Sprinkler News

European Sprinkler Installation Standard Adopted – After 15 years of effort, a CEN standard for installation of sprinklers was adopted in October by a 74% vote of the 19 participating nations. Germany, Austria, Switzerland and Finland voted against the adoption, mainly over concerns of enforcement. The new standard must be allowed for use by member nations alongside existing rules within 9 months (by September 2003) and must totally replace existing national standards within 40 months.

China to Increase Fire Prevention Efforts - China experienced 155,000 fires on the mainland during the first half of 2002, up 26.9 percent from the same period of the previous year. The fires have led to 860 million yuan (\$US 104 million) in property damage and killed 1357 people. More than 5,000 of these fires have occurred in public places, causing 92 million yuan in damage (\$US 11 million) and resulting in 222 deaths. The increase has caused the government to announce a new multi-ministry campaign to improve fire prevention, focusing on department stores, hotels, schools, hospitals and other public places.

Finland Calls for Protection of Elderly – A report prepared by the Finnish Accident Investigation bureau on a 1999 fire that claimed five lives in a senior citizen's home in Maanika, Finland, concludes that only an automatic fire sprinkler system could have prevented the loss of life. The report estimated that sprinklers could be installed in Finland for between \$US 16 and \$US 22 per square meter (\$US 1.50 to \$US 2.00 per square foot).

Hong Kong Undertakes Retrofit – Sprinkler protection for new high rise buildings has been required in Hong Kong since 1973, and in 1987 was extended to all new commercial buildings. Under an ordinance that took effect in 2001, existing commercial buildings with floor areas exceeding 230 m² (2500 ft²) were required to have sprinkler protection. Another new ordinance enacted in 2001 that will come into effect in 2002 requires sprinkler retrofit of all non-domestic parts of composite (domestic and commercial) buildings with aggregate floor areas exceeding 230 m² (2500 ft²). To keep sprinkler retrofit economical, the usual requirement for an onsite tank is being waived in favor of connection to the existing hydrant/hose reel tank or direct connection to the public main. Reduced capacity tanks will also be considered.

UK Report Recommends Against Structural Trade-Offs – A report issued by the UK's Institution of Structural Engineers (IStructE) has drawn its own conclusions from the collapse of the World Trade Center buildings in New York City in September of 2001. Among its recommendations are that active fire protection such as sprinkler systems be treated as an addition to, and not a substitute for, passive fire protection. The IStructE group believes it is reasonable to design a high-rise building to withstand a burnout of its contents assuming sprinkler failure.

Australian Car Park Fire Shows Need for Sprinklers – Although the Australian Building Code requires sprinkler protection for enclosed car parks for 40 or more cars, open deck car parks are exempted. However, the common assumption that the fire will not spread from one vehicle to another was shown to be invalid in a fire that took place in July of 2001 in New South Wales. The fire originated in a street level car park and quickly spread from the vehicle of origin to six other vehicles and adjacent combustibles, then through the open sides of the garage to involve seven other garages, also damaging six adjacent residential units.

European Fire Engineering Study Completed

A report has been issued in response to a commission from EC DG Enterprise to study the possibility of future European activity in fire safety engineering and performance based fire codes. The "BENEFEU" study (Benefits of Fire Safety Engineering within the European Union) was undertaken by a Consortium led by Warrington Fire Research (UK), with representatives from CTICM (France), DIFT (Denmark), IST (Portugal), RUG (Belgium), and TNO (Netherlands).

The report estimates that implementation of a system of performance based codes and regulations would cost 28 million Euros per year, which is 1% to 3% of capital building costs, but would produce benefits across the EU member states of 0.3 to 1 billion Euros per year. To avoid a slow transition to performance based codes that would create temporary barriers to trade and postpone benefits, a 10-year plan has been recommended by which the EU can manage future developments in fire safety engineering. The recommendations call for a Steering Committee to be appointed, including representatives of national fire regulators, fire safety engineering professionals and other experts, to determine the need for common assumptions, test methods, calculation procedures, and other tools in support of model codes. The Steering Committee will also examine and prioritize needs for fundamental and applied research in support of fire safety engineering and standardization, the means to finance such research, the development of a core curriculum for education of fire safety engineers at undergraduate, graduate, and postgraduate levels, and a code of conduct for the profession.

A two-day BENEFEU conference is being held in Luxembourg 7-8 November 2002, to present the findings of the report and discuss future plans. The conference is being organized by the European Group of Official Laboratories for Fire testing (EGOLF), an organization formed in 1988 to provide a focus for fire testing issues in Europe.

Upcoming Meetings, Seminars, and Exhibitions of Interest

26-28 February, 2003 – Fire Asia 2003 Exhibition & Conference, Hong Kong, (Fax +44(0)1737 855469)

8-9 April, 2003 – NFPA Cultural Resources Committee Meeting and Seminar, L'Aquila, Italy (www.nfpa.org)

1-3 May, 2003 – NFSA Annual Seminar & Exhibition, Westin Savannah Harbor Resort, Savannah, Georgia, USA (Fax +1-845-878-4215 or www.nfsa.org)

13-16 May, 2003 - Fire Guangdong 2003 (International Exhibition for Fire Prevention Equipment and Technology), China Foreign Trade Center, Guangzhou, China, Guangdong Provincial Fire Protection Association and Fire Protection Bureau, Guangdong Provincial Public Security Department, (Fax +86 20 83358432 or www.unionft.com)